Amendments to the Claims

Please amend Claims 21 and 29 to read as follows.

1.   (Original) A recording apparatus for recording an image on a recording medium by using a recording head in which a plurality of recording elements are arranged, said apparatus comprising:

memory means for storing a first table group for correcting input multi-level image data, the first table group comprising a plurality of first correction tables, each first correction table having a different degree of correction, and a second table group comprising a plurality of second correction tables having correction characteristics which are different from correction characteristics of the first table group with respect to different density levels;

first forming means for forming a first test pattern by the plurality of recording elements at a predetermined density;

first setting means for setting test correction tables for making the densities of an image to be recorded by the plurality of recording elements uniform by associating first correction tables of the first table group with respective recording elements of the plurality of recording elements based on a result of reading the densities of areas of the first test pattern that correspond to the plurality of recording elements;

second forming means for forming a second test pattern having a plurality of different density levels, the second test pattern being recorded with the recording elements being corrected by the test correction tables set by said first setting means; and

second setting means for setting recording correction tables corresponding to each of the plurality of recording elements based on the second test pattern, the recording correction tables being determined from among the first table group and the second table group.

2.   (Original) An apparatus according to Claim 1, further comprising selection means for selecting the recording correction tables by a user judging the second test pattern.

3.   (Original) An apparatus according to Claim 1, wherein the second table group comprising the plurality of second correction tables comprises a first table for higher density levels and a second table for lower density levels, the second table having a degree of correction different from a degree of correction of the first table.

4.   (Original) An apparatus according to Claim 1, wherein the recording elements comprise light emitting elements.

5.   (Original) An apparatus according to Claim 4, wherein the light emitting elements comprise LED elements.

6.   (Original) An apparatus according to Claim 1, wherein the recording head is an ink jet head for recording by ejecting ink from a plurality of nozzles in response to driving of the recording elements.

7.   (Original) An apparatus according to Claim 6, wherein the recording elements comprise electrothermal converters for applying thermal energy to ink.

8.   (Original) An apparatus according to Claim 6, wherein the recording elements comprise piezoelectric converters for ejecting the ink.

9.   (Original) An apparatus according to Claim 1, further comprising reading means for reading recorded images.

10.   (Original) An apparatus according to Claim 9, wherein said first setting means sets the test correction tables based on a result of reading the first test pattern by said reading means.

11.   (Original) An apparatus according to Claim 1, further comprising third forming means for forming a third test pattern having the plurality of different density levels, the third test pattern being recorded by recording elements uncorrected by any correction table, wherein said second setting means sets the recording correction tables based on a comparison of the second test pattern and the third test pattern.

12.   (Original) An apparatus according to Claim 11, wherein the comparison of the second and third test patterns is performed by a user.

13.   (Original) An apparatus according to Claim 11, further comprising reading means for reading recorded images and comparing means for comparing densities of read images, wherein said reading means reads the second and third test patterns and the comparison of the second and third test patterns is performed by said comparing means comparing data read by said reading means.

14.   (Original) A method for correcting nonuniformities in the density of an image recorded by a recording head having a plurality of recording elements arranged therein, said method comprising the steps of:

forming a first test pattern by the plurality of recording elements at a predetermined density;

setting, in a first setting step, test correction tables for making the densities of an image to be recorded by the plurality of recording elements uniform by associating first correction tables, which are from among a first table group for correcting input multi-level image data, with respective recording elements of the plurality of recording elements based on a result of reading densities of areas of the first test pattern that correspond to the plurality of recording elements;

forming a second test pattern having a plurality of different density levels, the second test pattern being recorded with the recording elements being corrected by the test correction tables set in said first setting step; and

setting, in a second setting step, recording correction tables corresponding to each of the plurality of recording elements based on the second test pattern, the recording correction tables being determined from among the first table group and a second table group comprising second correction tables having correction characteristics which are different from correction characteristics of corresponding first correction tables of the first table group with respect to different density levels.

15. (Original) A method according to Claim 14, further comprising a step of selecting the recording correction tables by a user judging the second test pattern.

16. (Original) A method according to Claim 14, wherein the second table group comprising the plurality of second correction tables comprises a first table for higher density levels and a second table for lower density levels, the second table having a degree of correction different from a degree of correction of the first table.

17. (Original) A method according to Claim 14, further comprising a step of reading recorded images, wherein said first setting step sets the test correction tables based on a result of reading the first test pattern in said reading step.

18.   (Original) A method according to Claim 14, further comprising a third forming step of forming a third test pattern having the plurality of different density levels, the third test pattern being recorded by recording elements uncorrected by any correction table, wherein said second setting step sets the recording correction tables based on a comparison of the second test pattern and the third test pattern.

19.   (Original) A method according to Claim 18, wherein the comparison of the second and third test patterns is performed by a user.

20.   (Original) A method according to Claim 18, further comprising a step of reading recorded images and a step of comparing densities of read images, wherein said reading step reads the second and third test patterns and the comparison of the second and third test patterns is performed by said comparing step comparing data read in said reading step.

21.   (Currently amended) A recording apparatus for performing binary recording on a recording medium by controlling binarizing means for binarizing input multi-level data and driving recording heads, each recording head comprising a plurality of recording elements, according to a binary signal output by the binarizing means, said apparatus comprising:

a plurality of density correcting table groups for correcting input multi-level image data, the density correcting table groups each comprising a plurality of correcting

tables, each having a different correction amount and having different correction characteristics from each other;

means for selecting one density correcting table group from the plurality of density correcting table groups; and

correcting means for correcting multi-level data by associating the multi-level data ~~correspond with a correcting table~~ with a correcting table from the selected correcting table group according to a pixel address of a corresponding recording head for each pixel.

22.   (Original) An apparatus according to Claim 21, wherein in said means for selecting the one density correcting table group from the plurality of density correcting table groups, selection input is performed by a user.

23.   (Original) An apparatus according to Claim 21, wherein one correcting table group of the plurality of correcting table groups comprises correcting tables having correction characteristics which differ from correction characteristics of correcting tables of another correcting table group at different density levels.

24.   (Original) An apparatus according to Claim 21, further comprising means for generating the multi-level data by reading a document.

25.   (Original) An apparatus according to Claim 21, wherein the recording elements comprise light emitting elements.

26.   (Original) An apparatus according to Claim 25, wherein the light emitting elements comprise LED elements.

27.   (Original) An apparatus according to Claim 21, wherein the recording head is an ink jet head for recording by ejecting ink from a plurality of nozzles in response to driving of the recording elements.

28.   (Original) An apparatus according to Claim 27, wherein the recording elements comprise electrothermal converters for applying thermal energy to ink.

29.   (Currently amended) An apparatus according to Claim 28 27, wherein the recording elements comprise piezoelectric converters for ejecting the ink.